

**IN THE UNITED STATES  
PATENT AND TRADEMARK OFFICE**

**PATENT APPLICATION**

Steven Mark Anderson  
Siddhartha Bhowmik  
Joseph William Buckfeller  
Sailesh Mansinh Merchant  
Frank Minardi

Case: 2-5-10-81-1

Serial No. 09/586,586

Group Art Unit 2811

Filed June 2, 2000

Examiner

Title Method And System For Eliminating Extrusions In Semiconductor Vias

ASSISTANT COMMISSIONER FOR PATENTS  
WASHINGTON, D. C. 20231

SIR:

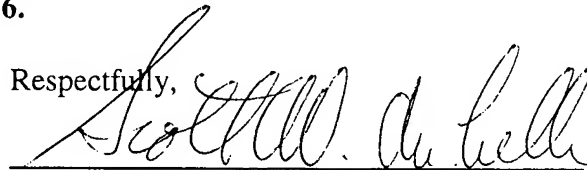
**Associate Power Of Attorney**

Please recognize Wendy W. Koba (Reg. No. 30509), P.O. Box 556, Springtown, PA 18081-0556, as an associate attorney in the above-mentioned application, with full power to prosecute said application, to make alterations and amendments therein, and to transact all business in the Patent and Trademark Office connected therewith.

Telephone calls should be made to the said associate attorney by dialing 610-346-7112.

All written communications, however, are to be addressed to **Wendy W. Koba, P.O. Box 556, Springtown, PA 18081-0556.**

Respectfully,



Scott W. McLellan

Attorney for Applicant(s), Reg. No. 30776

Date: 25 July 02

Agere Systems Inc.  
P.O. Box 614  
Berkeley Heights, NJ 07922-0614

IN THE UNITED STATES  
PATENT AND TRADEMARK OFFICE

Patent Application

Inventor(s) Anderson et al.

Case 2-5-10-81-1

Serial No. 09/586,586

Group Art Unit 2811

Filing Date 6/2/00

Examiner Sarkar

Title Method and System for Eliminating Extrusions  
in semiconductor vias

COMMISSIONER FOR PATENTS  
WASHINGTON, D.C. 20231

SIR:

CHANGE OF CORRESPONDENCE ADDRESS

In accordance with the Manual of Patent Examining Procedures, Section 601.03,  
please change the mailing address for all correspondence in the above-identified  
application to:

Wendy W. Koba, Esq.  
P.O. Box 556  
Springtown, PA 18081-0556

Respectfully,

Wendy W. Koba  
Wendy W. Koba  
Reg. No. 30509  
610-346-7112  
Attorney for applicants

Date: 9/5/02

*The First State*

I, HARRIET SMITH WINDSOR, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED IS A TRUE AND CORRECT COPY OF THE CERTIFICATE OF OWNERSHIP, WHICH MERGES:

"AGERE SYSTEMS GUARDIAN CORP.", A DELAWARE CORPORATION,  
WITH AND INTO "AGERE SYSTEMS INC." UNDER THE NAME OF "AGERE SYSTEMS INC.", A CORPORATION ORGANIZED AND EXISTING UNDER THE LAWS OF THE STATE OF DELAWARE, AS RECEIVED AND FILED IN THIS OFFICE THE TWENTY-NINTH DAY OF AUGUST, A.D. 2002, AT 9 O'CLOCK A.M.

AND I DO HEREBY FURTHER CERTIFY THAT THE EFFECTIVE DATE OF THE AFORESAID CERTIFICATE OF OWNERSHIP IS THE THIRTY-FIRST DAY OF AUGUST, A.D. 2002.

A FILED COPY OF THIS CERTIFICATE HAS BEEN FORWARDED TO THE NEW CASTLE COUNTY RECORDER OF DEEDS.



*Harriet Smith Windsor*  
Harriet Smith Windsor, Secretary of State

3268412 8100M  
020545223

AUTHENTICATION: 1959517  
DATE: 08-29-02

**CERTIFICATE OF OWNERSHIP AND MERGER**

**OF**

**Agere Systems Guardian Corp.  
(a Delaware corporation)**

**INTO**

**Agere Systems Inc.  
(a Delaware corporation)**

**UNDER SECTION 263 OF THE GENERAL  
CORPORATION LAW OF THE STATE OF DELAWARE**

Agere Systems Inc., a corporation organized and existing under the laws of Delaware ("Corporation"), **DOES HEREBY CERTIFY:**

**FIRST:** The Corporation is the owner of all of the outstanding shares of common stock of Agere Systems Guardian Corp., which is also a business corporation of the State of Delaware.

**SECOND:** On August 22, 2002 the Subsidiary Governance Committee of the Board of Directors of the Corporation adopted the following resolution to merge Agere Systems Guardian Corp. into the Corporation:

**RESOLVED** that Agere Systems Guardian Corp., a Delaware corporation, shall be merged with and into Agere Systems Inc., a Delaware corporation, with Agere Systems Inc. being the surviving corporation; and Agere Systems Inc. shall thereupon assume all of the obligations of Agere Systems Guardian Corp."

**THIRD:** That the merger authorized hereby shall become effective as of 9:00 a.m. Eastern Standard Time on August 31, 2002.

Executed on August 22, 2002

**AGERE SYSTEMS INC.**

By Paul Bento  
Paul Bento, Vice President

**PATENT ASSIGNMENT**

**by and between**

**LUCENT TECHNOLOGIES INC.**

**and**

**AGERE SYSTEMS GUARDIAN CORP.**

**Dated as of January 30, 2001**

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## PATENT ASSIGNMENT

THIS PATENT ASSIGNMENT (this "Assignment"), effective as of January 30, 2001 (the "Effective Date"), is by and between Lucent Technologies Inc., a Delaware corporation, with offices at 600 Mountain Avenue, Murray Hill, New Jersey 07974, United States of America, ("ASSIGNOR") and Agere Systems Guardian Corp., a Delaware corporation, with offices at 555 Union Boulevard, Allentown, PA 18109, United States of America ("Agere Systems Guardian").

### RECITALS

A. WHEREAS, the Board of Directors of ASSIGNOR has determined that it is in the best interests of ASSIGNOR and its stockholders to separate ASSIGNOR's existing businesses into two independent businesses;

B. WHEREAS, ASSIGNOR presently owns or controls certain patents, patent applications, and invention submissions listed in the attached Appendices A and B (hereinafter "TRANSFERRED PATENTS") and;

C. WHEREAS, in furtherance of the foregoing separation, ASSIGNOR desires to transfer, assign, convey, deliver and vest all of its interests and rights in TRANSFERRED PATENTS for all countries, jurisdictions and political entities of the world, to and in Agere Systems Guardian;

NOW, THEREFORE, in consideration of the premises and for other good and valid consideration, the receipt and sufficiency of which are hereby acknowledged, the parties, intending to be legally bound, agree as follows:

ASSIGNOR, subject to existing rights and licenses of third parties, does hereby assign, convey, transfer and deliver, and agrees to assign, convey, transfer and deliver to Agere Systems Guardian, its successors, assigns and legal representatives or nominees, ASSIGNOR's entire right, title and interest, for all countries, jurisdictions and political entities of the world, along with the right to sue for past infringement, to all TRANSFERRED PATENTS listed on Appendices A and B, and corresponding counterpart foreign patents and patent applications, with respect to which, and to the extent to which, ASSIGNOR now has or hereafter acquires the right to so assign, convey, transfer and deliver. Agere Systems Guardian recognizes that ASSIGNOR holds only bare legal title to the TRANSFERRED PATENTS listed in Appendix A (which lists the United States Patents and patent applications previously exclusively licensed to Lucent Technologies Microelectronics Guardian Corp.).


ASSIGNOR and ASSIGNEE recognize that the patents listed in Appendices A and B may inadvertently include patents that are owned by various subsidiaries of ASSIGNOR, including Agere, Inc., Ortel Corporation, Optimay Corporation, Herrmann Technology, Inc., and Enable Semiconductor, Inc. Ownership of such patents shall not be affected by this Patent

Assignment, and ASSIGNEE agrees that any such patents shall be deemed deleted from Appendices A and B.

ASSIGNOR agrees that, upon request it will, at any time without charge to Agere Systems Guardian, but at Agere Systems Guardian's expense, furnish all necessary documentation relating to or supporting chain of title, sign all papers, take all rightful oaths, and do all acts which may be necessary, desirable or convenient for vesting title to TRANSFERRED PATENTS in Agere Systems Guardian, its successors, assigns and legal representatives or nominees; including but not limited to any acts which may be necessary, desirable or convenient for claiming said rights and for securing and maintaining patents for said inventions in any and all countries and for vesting title thereto in Agere Systems Guardian and its respective successors, assigns and legal representatives or nominees.

IN WITNESS WHEREOF, the parties have caused this PATENT ASSIGNMENT to be executed by their duly authorized representatives as of the Effective Date.

**LUCENT TECHNOLOGIES INC.**

By:   
Daniel P. McCurdy  
President, Intellectual Property Business

**AGERE SYSTEMS GUARDIAN CORP.**

By:   
Fred M. Romano  
President

ACKNOWLEDGMENTS

STATE OF NEW JERSEY )

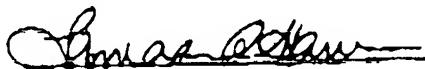
: ss:

COUNTY OF SOMERSET )

I CERTIFY that on January 30, 2001, Daniel P. McCurdy personally came before me and this person acknowledged under oath, to my satisfaction that:

a.) this person signed, sealed and delivered the attached Patent Assignment as President - Intellectual Property Business of Lucent Technologies Inc.; and

b.) this Patent Assignment was signed and made by Lucent Technologies Inc. as its voluntary act and deed by virtue of authority from its Board of Directors.



Name

TAMORA ANNE HANNA

Notary Public

Notary Public of New Jersey

My Commission Expires: ~~Registered~~ in Hunterdon County

[Notarial Seal]

My Commission Expires March 25, 2002

STATE OF FLORIDA )

: ss:

COUNTY OF ORANGE )

I CERTIFY that on January 31, 2001, Fred M. Romano personally came before me and this person acknowledged under oath, to my satisfaction that:

a.) this person signed, sealed and delivered the attached Patent Assignment as Vice President of Agere Systems Guardian Corp.; and

b.) this Patent Assignment was signed and made by Agere Systems Guardian Corp. as its voluntary act and deed by virtue of authority from its Board of Directors.

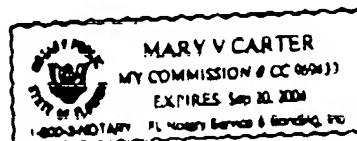


Name

Notary Public

My Commission Expires:

[Notarial Seal]



Case Name	Filing Date	Issue Date	P. at N.	Serial No.
Akerson 1-3-2	8/28/2000			09/805341
Akomer 1-11-8-1	10/29/1999			09/430328
Akulova 1-4-2	3/31/2000			09/540471
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Alers 11	4/15/1999			09/292422
Alers 12	1/12/1999			60/115530
Alers 12-147	6/30/1999			09/345556
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Alers 15-8-4-11	6/12/1999			09/310388
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Alers 19	8/12/1999			09/374757
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Alers 22-4	8/31/1999			09/387537
Alers 2-2-5	1/2/1998	3/28/2000	6043882	
Alers 23	8/31/1999			09/387323
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Alers 25-20-59-80	9/2/1999			09/388682
Alers 26-9-18-42	3/7/2000			09/519609
Alers 4-5-8-28	5/28/1998	5/9/2000	6060408	
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All 16-10-5	5/24/1999			09/317431
All 17-3	5/20/1999			09/314968
All 18-11	3/10/1999			09/265848
All 20-12-1	2/8/1999			09/246804
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Anderson 1	8/2/2000		09/680709	
Anderson 1	8/4/1999		09/631150	
Anderson 2-1-1-3	7/10/2000			60/147106
Anderson 2-5-10-81-1	8/2/2000			09/612980
				09/586588

THE UNITED STATES PATENT AND TRADEMARK OFFICE

Declaration and Power of Attorney

As the below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I hereby claim the benefit under Title 35, United States Code, 119(e) of any United States provisional application(s) identified below:

Provisional application No. 60/137,075, filed on June 2, 1999.

I believe I am the original, first and sole inventor of the subject matter which is claimed and for which a patent is sought on the invention entitled **METHOD AND SYSTEM FOR ELIMINATING EXTRUSIONS IN SEMICONDUCTOR VIAS** the specification of which **was filed on June 2, 2000, as application Serial No. 09/586,586.**

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by an amendment, if any, specifically referred to in this oath or declaration.

I acknowledge the duty to disclose all information known to me which is material to patentability as defined in Title 37, Code of Federal Regulations, 1.56.

I hereby claim foreign priority benefits under Title 35, United States Code, 119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

None

I hereby claim the benefit under Title 35, United States Code, 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, 112, I acknowledge the duty to disclose all information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations, 1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application:

None

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

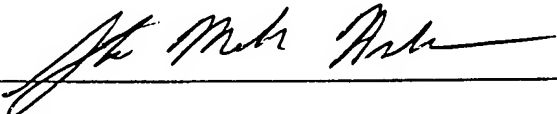
I hereby appoint the following attorney(s) with full power of substitution and revocation, to prosecute said application, to make alterations and amendments therein, to receive the patent, and to transact all business in the Patent and Trademark Office connected therewith:

Thomas J. Bean	(Reg. No. 44528)
Lester H. Birnbaum	(Reg. No. 25830)
Richard J. Botos	(Reg. No. 32016)
Jeffery J. Brosemer	(Reg. No. 36096)
Kenneth M. Brown	(Reg. No. 37590)
Donald P. Dinella	(Reg. No. 39961)
Guy Eriksen	(Reg. No. 41736)
Martin I. Finston	(Reg. No. 31613)
William S. Francos	(Reg. No. 38456)
Barry H. Freedman	(Reg. No. 26166)
Julio A. Garceran	(Reg. No. 37138)
Jimmy Goo	(Reg. No. 36528)
Anthony Grillo	(Reg. No. 36535)
Stephen M. Gurey	(Reg. No. 27336)
John M. Harman	(Reg. No. 38173)
Matthew J. Hodulik	(Reg. No. 36164)
Michael B. Johannesen	(Reg. No. 35557)
Mark A. Kurisko	(Reg. No. 38944)
Irena Lager	(Reg. No. 39260)
John B. MacIntyre	(Reg. No. 41170)
Christopher N. Malvone	(Reg. No. 34866)
Scott W. McLellan	(Reg. No. 30776)
Martin G. Meder	(Reg. No. 34674)
John C. Moran	(Reg. No. 30782)
Michael A. Morra	(Reg. No. 28975)
Gregory J. Murgia	(Reg. No. 41209)
Claude R. Narcisse	(Reg. No. 38979)
Joseph J. Opalach	(Reg. No. 36229)
Neil R. Ormos	(Reg. No. 35309)
Eugen E. Pacher	(Reg. No. 29964)
Jack R. Penrod	(Reg. No. 31864)
Gregory C. Ranieri	(Reg. No. 29695)
Scott J. Rittman	(Reg. No. 39010)
Ferdinand M. Romano	(Reg. No. 32752)
Eugene J. Rosenthal	(Reg. No. 36658)
Bruce S. Schneider	(Reg. No. 27949)
Ronald D. Slusky	(Reg. No. 26585)
David L. Smith	(Reg. No. 30592)
Ozer M. N. Teitelbaum	(Reg. No. 36698)
John P. Veschi	(Reg. No. 39058)

David Volejnicek	(Reg. No. 29355)
Charles L. Warren	(Reg. No. 27407)
Jeffrey M. Weinick	(Reg. No. 36304)
Eli Weiss	(Reg. No. 17765)

I hereby appoint the attorney(s) on ATTACHMENT A as associate attorney(s) in the aforementioned application, with full power solely to prosecute said application, to make alterations and amendments therein, to receive the patent, and to transact all business in the Patent and Trademark Office connected with the prosecution of said application. No other powers are granted to such associate attorney(s) and such associate attorney(s) are specifically denied any power of substitution or revocation.

Full name of 1st joint inventor: Steven Mark Anderson


Inventor's signature  Date 10-31-00

Residence: Kissimmee, FL

Citizenship: USA

Post Office Address: 1406 Harbin Drive, Kissimmee, FL 34744

Full name of 2nd joint inventor: Siddhartha Bhowmik

Inventor's signature  Date 10/31/00

Residence: Orlando, FL

Citizenship: INDIA

Post Office Address: 2132 Opilana Street, Orlando, FL 32837

554-243

Full name of 3rd joint inventor: Joseph William Buckfeller

Inventor's signature Joseph W. Buckfeller Date 10-31-00

Residence: Orlando, FL

Citizenship: USA

Post Office Address: 4101 Equity Row, Orlando, FL 32819

Full name of 4th joint inventor: Sailesh Mansinh Merchant

Inventor's signature Sailesh Mansinh Merchant Date 31 Oct 00

Residence: Orlando, FL

Citizenship: USA

Post Office Address: 8214 Vineland Oaks Boulevard, Orlando, FL 32835

Full name of 5th joint inventor: Frank Minardi

Inventor's signature Frank Minardi Date 10/31/00

Residence: Kissimmee, FL

Citizenship: USA

Post Office Address: 582 Compass Court, Kissimmee, FL 34744

**ATTACHMENT A**

Attorney Name(s): David M. Carter Reg. No.: 30,949  
George Likourezos 40,067

Telephone calls should be made to **DILWORTH & BARRESE** at:

Phone No.: (516) 228-8484

Fax No.: (516) 228-8516

All written communications are to be addressed to:

**DILWORTH & BARRESE**  
**333 Earle Ovington Boulevard**  
**Uniondale, New York 11553**

## ASSIGNMENT AND AGREEMENT

For value received, we, **STEVEN MARK ANDERSON**, of Kissimmee Township, in the County of Osceola, and State of Florida; **SIDDHARTHA BHOWMIK**, of Orlando Township, in the County of Orange, and State of Florida; **JOSEPH WILLIAM BUCKFELLER**, of Orlando Township, in the County of Orange, and State of Florida; **SAILESH MANSINH MERCHANT**, of Orlando Township, in the County of Orange, and State of Florida; and **FRANK MINARDI**, of Orlando Township, in the County of Orange, and State of Florida, hereby sell, assign and transfer to the Lucent Technologies Inc., a corporation of the State of Delaware, having an office at 600 Mountain Avenue, Murray Hill, New Jersey 07974, U.S.A., and its successors, assigns and legal representatives, hereinafter collectively Lucent Technologies Inc., the entire right, title and interest, for the United States of America, in and to certain inventions related to a **METHOD AND SYSTEM FOR ELIMINATING EXTRUSIONS IN SEMICONDUCTOR VIAS** described in an application for Letters Patent of the United States, filed with the U.S. Patent and Trademark Office on June 2, 2000, and all the rights and privileges in said application and under any and all Letters Patent that may be granted in the United States for said inventions; and we also concurrently hereby sell, assign and transfer to Lucent Technologies Inc. the entire right, title and interest in and to said inventions for all countries foreign to the United States, including all rights of priority arising from the application aforesaid, and all the rights and privileges under any and all forms of protection, including Letters Patent, that may be granted in said countries foreign to the United States for said inventions.

We authorize Lucent Technologies Inc. to make application for such protection in its own name and maintain such protection in any and all countries foreign to the United States, and to invoke and claim for any application for patent or other form of protection for said inventions, without further authorization from us, any and all benefits, including the right of priority provided by any and all treaties, conventions, or agreements.

We hereby consent that a copy of this assignment shall be deemed a full legal and formal equivalent of any document which may be required in any country in proof of the right of Lucent Technologies Inc. to apply for patent or other form of protection for said inventions and to claim the aforesaid benefit of the right of priority.

We request that any and all patents for said inventions be issued to Lucent Technologies Inc. in the United States and to Lucent Technologies Inc. in all countries foreign to the United States, or to such nominees as they may designate.

We agree that, when requested, we shall, without charge to Lucent Technologies Inc. but at its expense, sign all papers, take all rightful oaths, and do all acts which may be necessary, desirable or convenient in connection with said applications, patents, or other forms of protection.

  
STEVEN MARK ANDERSON

Date: Oct 31, 2000


United States of America )

State of FLORIDA ) ss.:

County of ORANGE )

On this 31<sup>st</sup> day of October, 2000, before me personally came STEVEN MARK ANDERSON, to me known to be the individual described in and who executed the foregoing instrument, and acknowledged execution of the same.



  
Notary Public


  
\_\_\_\_\_  
**SIDDHARTHA BHOWMIK**

Date: 10/31/00

United States of America                    )  
State of FLORIDA                            ) ss.:  
County of ORANGE                            )

On this 31<sup>st</sup> day of OCTOBER, 2000, before me personally came  
**SIDDHARTHA BHOWMIK**, to me known to be the individual described in and who  
executed the foregoing instrument, and acknowledged execution of the same.



  
\_\_\_\_\_  
Notary Public

Joseph W. Buckfeller  
**JOSEPH WILLIAM BUCKFELLER**

Date: Oct. 31, 2000

United States of America )

State of FLORIDA ) ss.:

County of ORANGE )

On this 31<sup>st</sup> day of OCTOBER, 2000, before me personally came **JOSEPH WILLIAM BUCKFELLER**, to me known to be the individual described in and who executed the foregoing instrument, and acknowledged execution of the same.



Ellie Roberts  
Notary Public

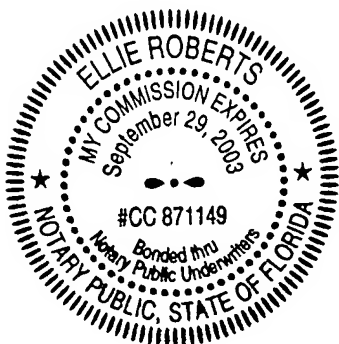
We agree that, when requested, we shall, without charge to Lucent Technologies Inc. but at its expense, sign all papers, take all rightful oaths, and do all acts which may be necessary, desirable or convenient in connection with said applications, patents, or other forms of protection.


  
\_\_\_\_\_  
SAILESH MANSINH MERCHANT

Date: 31 Oct '00

United States of America                    )  
State of FLORIDA                            ) ss.:  
County of ORANGE                            )

On this 31<sup>st</sup> day of OCTOBER, 2000, before me personally came  
SAILESH MANSINH MERCHANT, to me known to be the individual described in and  
who executed the foregoing instrument, and acknowledged execution of the same.



  
\_\_\_\_\_  
Notary Public

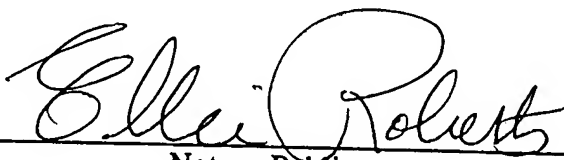
  
FRANK MINARDI

Date: Oct. 31, 2000

United States of America                    )  
State of FLORIDA                            ) ss.:  
County of ORANGE                        )

On this 31<sup>st</sup> day of OCTOBER, 2000, before me personally came  
FRANK MINARDI, to me known to be the individual described in and who executed  
the foregoing instrument, and acknowledged execution of the same.



  
Notary Public